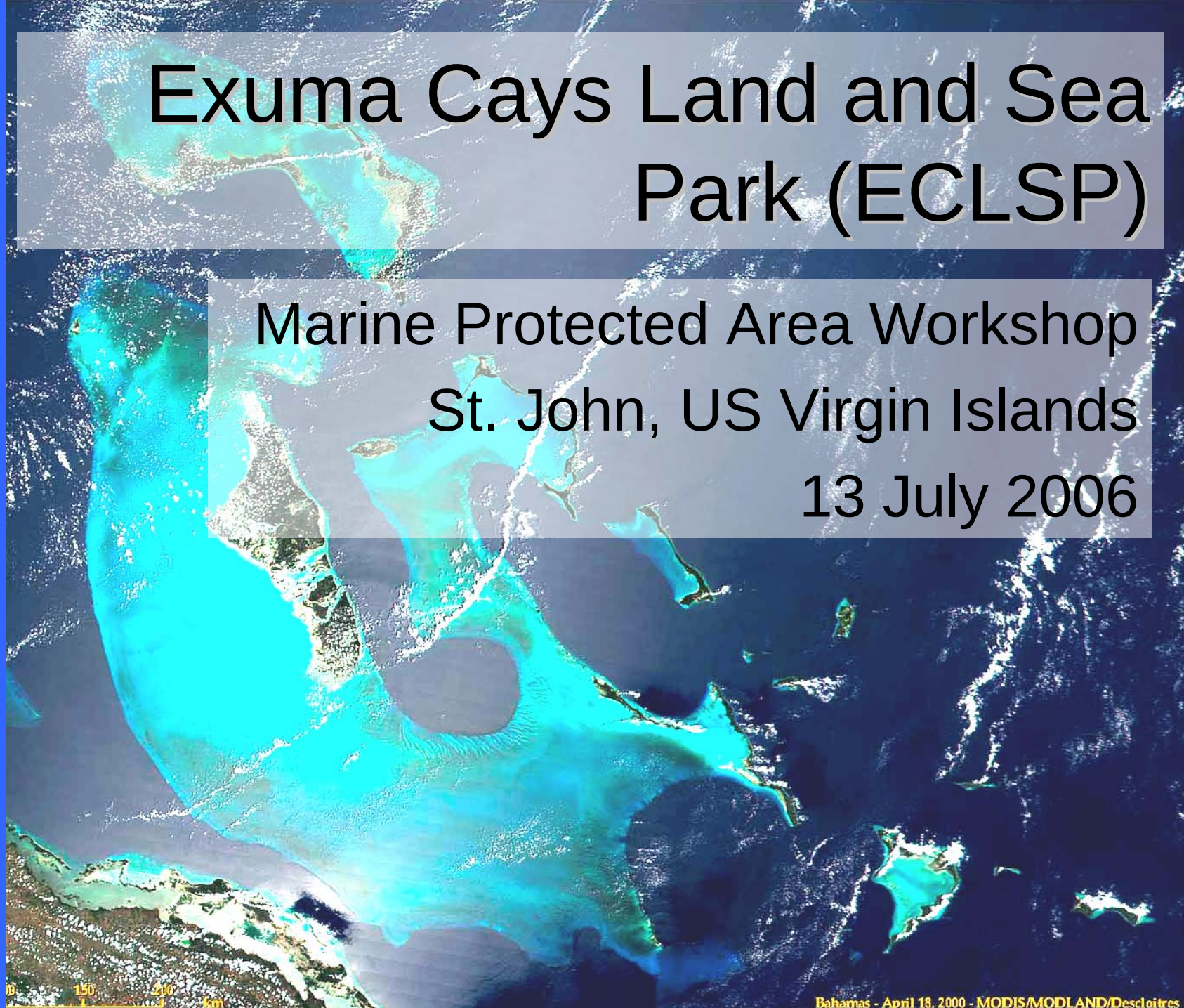
Exuma Cays Land and Sea Park (ECLSP)

Marine Protected Area Workshop

St. John, US Virgin Islands

13 July 2006



ECLSP History

- 1958 – designated by a special Act of Parliament
- 186 square miles, of which 167 are marine
- Includes shallow water sea grass, flats, mangrove, patch reef, offshore reefs and deepwater habitats

Bahamas National Trust

- 1959 – BNT was incorporated by the same Act of Parliament
- To manage the ECLSP and future park areas
- Non-profit Organization, 4% of annual budget from gov't
- Now manages the National Park System, which includes 25 Parks
- Staff of approx. 30

National Park System

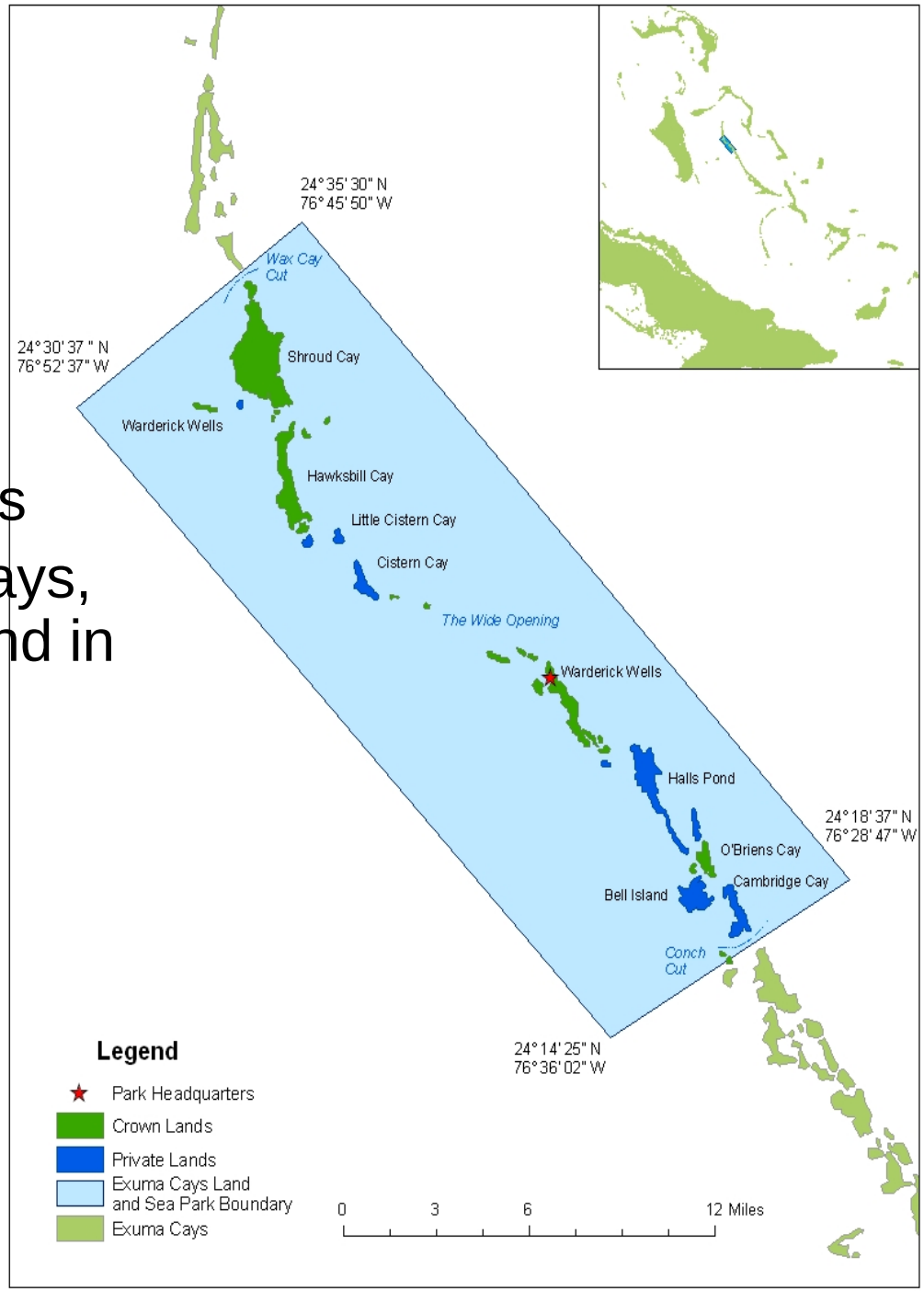
THE COMMONWEALTH OF THE BAHAMAS

1. Lucayan National Park
2. Rand Nature Centre
3. Peterson Cay National Park
4. Walkers Cay National Park
5. Black Sound Cay National Reserve
6. Pelican Cays National Park
7. Tilloo Cay National Reserve
8. Abaco National Park
9. The Retreat
10. Bonefish Pond National Park
11. Harrold and Wilson Ponds National Park
12. The Primeval Forest
13. Central Andros National Parks (5)
18. Conception Island
19. Exuma Cays Land & Sea Park
20. Moriah Harbour Cay National Park
21. Marine Farm
22. Hope House
23. Little Inagua National Park
24. Union Creek Reserve

Little Bahama Bank
Abaco
Grand Bahama
New Providence
Cat Island
Andros
San Salvador
Exuma
Rum Cay
Long Island
Great Bahamas Bank
Crooked Island
Acklins
Mayaguana
CUBA
Little Inagua
Great Inagua
TURKS AND CAICOS ISLANDS

ECLSP

- 22 miles long and 8 miles wide
- Offshore boundaries from surrounding cays, both on the Bank and in the Exuma Sound
- 112,640 acres
- 1986 – no take
- 1st of its kind
- No fishing allowed
- No extraction



ECLSP Purpose

- Protect the native flora and fauna, natural communities, and ecosystems that represent the biodiversity of the Park
- Conserve natural and cultural resources through science, research, education and public participation
- Protect for present and future generations, the natural beauty and esthetic value of relatively unaltered tropical island ecosystems
- Function as a marine fisheries reserve to sustain regional commercially valuable stocks
- Serve as a working model for future development of marine protected areas (MPAs) worldwide
- Provide recreational opportunities for users, compatible with natural resource protection
- Serve as a centerpiece of the BNT National Park System

Research and Monitoring

- Primarily conducted by visiting scientists and institutions
- Director of Parks & Science
- Research and Monitoring to meet the needs of the park
- Challenges - Incompatible development, recreation, poaching
- “Successes” – mpa evaluations, key species, etc

Spiny Lobster (*Panulirus argus*)

- Lobster tagged in the park have been found repopulating areas around Cat Island (70 miles away)
- Larval dispersal projected up to 95 miles away
- Chief export – accounting for $60-70 million export value annually

Nassau Grouper (*Epinephelus striatus)*

- Approximately 74% of the grouper in the northern Exuma region come from the Exuma Park.
- Grouper tagged in the Exuma Park were found off both North Long Island and South Long Island (150 miles away)
- Biomass of grouper is seven times greater than that observed in three other regions of the Bahamian archipelago
- Reproductive output 6 times greater inside the park, than outside

Queen Conch *(Strombus gigas)*

- Concentration of Conch inside the park is 31 times higher than outside
- Average conch density (>200 conch per hectare) are found to be significantly
- higher than most other parts of its geographic range
- Conservatively provides several million conch outside the park
- Providing a significant fishery resource potential annually


Exuma Park

Bahamas Biocomplexity Project

- in addition to protecting key species no take areas promote healthier coral reefs
- an expected increase in groupers has had positive effects on parrotfish, the primary grazers
- larger parrotfish within reserves are able to both avoid fishermen's traps and "escape" the risk of predation from groupers by growing larger than groupers can swallow
- leads to more and larger parrotfish
- increased parrotfish grazing
- more free space for the establishment and growth of new corals on reefs within reserves

Bahamas Biocomplexity Project

- twice as many parrotfish predators, nearly half of which were Nassau groupers, inside the reserve as outside
- parrotfish have contributed to a healthier reef by reducing algal coverage
- cover of algae on reefs was reduced four-fold compared to outside the reserve

Challenges of Research and Monitoring

- Lack of Capacity
- Logistics - having a place for researchers to stay, to eat, and supporting there activities requires manpower and equipment and housing
- Lack of Resources - some times we are called on to assist them with ongoing efforts - i.e. - during breeding season, we monitor tropic bird populations
- Long term research & monitoring takes time - i.e. - 5 - 10 years in nature, and we don't have the results to know what's going on until it's done
- Not enough research and monitoring -specifically water quality monitoring - but we don't have the in house expertise or funds to hire it out on our own.

Impact to surrounding areas

- an increase in the parks yacht tourism level -- from 500 "boat nights" in 1984 to over 17,000 "boat nights" in 1998
- creating a parallel increase in recreational fishing pressure
- The tourist-driven fishing pressure has caused a 30%-60% decrease in large grouper numbers in waters surrounding the park

Lessons learned

- Time
- Resources
- Patience
- Community consultation
- Still learning!

Thank you!